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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/589,170	06/08/2000	Ryuji Kohno	192919US2	9759

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EXAMINER

PERILLA, JASON M

ART UNIT PAPER NUMBER

2634

DATE MAILED: 04/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/589,170

Applicant(s)

KOHNO ET AL.

Examiner

Jason M Perilla

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-6, 10-12 and 15-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-6, 10-12 and 15-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 4-6, 10-12, and 15-18 are pending in the instant application.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Response to Arguments and Amendments

3. The Amendments to the specification received February 13, 2004 (paper no. 5 in the file) correct the objections to the specification set forth in the first office action (paper no. 3 in the file).

4. It is noted by the Examiner that the rejections set forth in the first office action were not traversed by the Applicant. Namely, the 35 USC § 102(b) rejection of claim 13 as anticipated by Ishifuji and the 35 USC § 103(a) rejections of claims 1-3, 7-9, and 14 as being unpatentable over Ishifuji in view of Jokura presented in the first office action were not traversed by the Applicant. Rather, in the new listing of the claims received February 13, 2004, the Applicant has amended the dependent claims which were indicated to be allowable in the first office action to include all the limitations of the base claim and any intervening claims (page 4 – Remarks/Arguments, paragraph 4). Hence, it is asserted by the Examiner that the Applicant found the rejections set forth in the first office action to be proper and persuasive. The Examiner points out that the instant application describes two methods of estimating a receiving signal in a frequency hopping spread spectrum system. The first method involves sweeping the plurality of frequencies used by the system once, and using the modulation-system discriminator

Art Unit: 2634

and signal strength measuring circuit to determine the proper receiving signal (figs. 3-5, pages 18-19). However, in the case where more than one received signals of the same modulation type are detected, it may be required to sweep the plurality of frequencies used by the system many times and utilize the estimation means (fig. 3, page 19, line 21-page 20, line 8) to discriminate between the received signals based on a hopping pattern detected (fig. 6, page 21, line 29-page 22, line 13).

Claim Objections

5. The use of the word "terminal" in the claims is objected to where the word "terminal" is used to describe a frequency or receiving channel or a receiving channel frequency. Because the word "terminal" is commonly understood to be an electrical contact and not commonly used to describe a particular frequency, the claim may become confusing or indefinite.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 4, a receiver system comprising an estimation circuit is claimed wherein the estimation circuit estimates a receiving channel based on a hopping pattern in the frequency of the received signal. However, the claim does not particularly point out the process by which the hopping pattern is acquired. The claims provide for

switching the frequency of the output signal from a channel at one terminal to a channel at the other terminal, but do not provide for *sweeping* between one frequency to another as described in the specification (fig. 3; page16, line 24-page 17, line 20). Moreover, the specification provides for the sweeping of the possible reception frequencies a plurality of times (fig. 3) so that the estimation circuit may make a determination of the correct reception frequency based upon a hopping pattern (fig. 6, page 21, line 29-page 22, line 13). Because the claim provides for only *changing* between frequencies and not *sweeping* between them, the claim does not particularly point out and distinctly claim the subject matter which the applicant regards as the invention, and hence, the claim is indefinite. Further, because the claim does not provide for the *sweeping a plurality of times* of the possible reception frequencies, the estimation circuit is not enabled to make a determination of the reception frequency based upon a hopping pattern as illustrated in the drawings.

Regarding claims 5 and 6, the claims are rejected because they are based upon a rejected parent claim.

Regarding claim 10, a receiver system comprising an estimation circuit is claimed wherein the estimation circuit estimates a receiving channel based on a hopping pattern in the frequency of the received signal. However, the claim does not particularly point out the process by which the hopping pattern is acquired. The claims provide for switching the frequency of the output signal from a channel at one terminal to a channel at the other terminal, but do not provide for *sweeping* between one frequency to another as described in the specification (fig. 3; page16, line 24-page 17, line 20). Moreover,

the specification provides for the sweeping of the possible reception frequencies a plurality of times (fig. 3) so that the estimation circuit may make a determination of the correct reception frequency based upon a hopping pattern (fig. 6, page 21, line 29-page 22, line 13). Because the claim provides for only *changing* between frequencies and not *sweeping* between them, the claim does not particularly point out and distinctly claim the subject matter which the applicant regards as the invention, and hence, the claim is indefinite. Further, because the claim does not provide for the *sweeping a plurality of times* of the possible reception frequencies, the estimation circuit is not enabled to make a determination of the reception frequency based upon a hopping pattern as illustrated in the drawings.

Regarding claim 11, a receiver system comprising an estimation circuit is claimed wherein the estimation circuit estimates a receiving channel based on a hopping pattern in the frequency of the received signal. However, the claim does not particularly point out the process by which the hopping pattern is acquired. The claims provide for switching the frequency of the output signal from a channel at one terminal to a channel at the other terminal, but do not provide for *sweeping* between one frequency to another as described in the specification (fig. 3; page 16, line 24-page 17, line 20). Moreover, the specification provides for the sweeping of the possible reception frequencies a plurality of times (fig. 3) so that the estimation circuit may make a determination of the correct reception frequency based upon a hopping pattern (fig. 6, page 21, line 29-page 22, line 13). Because the claim provides for only *changing* between frequencies and not *sweeping* between them, the claim does not particularly point out and distinctly

claim the subject matter which the applicant regards as the invention, and hence, the claim is indefinite. Further, because the claim does not provide for the *sweeping a plurality of times* of the possible reception frequencies, the estimation circuit is not enabled to make a determination of the reception frequency based upon a hopping pattern as illustrated in the drawings.

Regarding claim 12, a receiver system comprising an estimation circuit is claimed wherein the estimation circuit estimates a receiving channel based on a hopping pattern in the frequency of the received signal. However, the claim does not particularly point out the process by which the hopping pattern is acquired. The claims provide for switching the frequency of the output signal from a channel at one terminal to a channel at the other terminal, but do not provide for *sweeping* between one frequency to another as described in the specification (fig. 3; page 16, line 24-page 17, line 20). Moreover, the specification provides for the sweeping of the possible reception frequencies a plurality of times (fig. 3) so that the estimation circuit may make a determination of the correct reception frequency based upon a hopping pattern (fig. 6, page 21, line 29-page 22, line 13). Because the claim provides for only *changing* between frequencies and not *sweeping* between them, the claim does not particularly point out and distinctly claim the subject matter which the applicant regards as the invention, and hence, the claim is indefinite. Further, because the claim does not provide for the *sweeping a plurality of times* of the possible reception frequencies, the estimation circuit is not enabled to make a determination of the reception frequency based upon a hopping pattern as illustrated in the drawings.

Regarding claim 15, a receiver system comprising an estimation means is claimed wherein the estimation means estimates a receiving channel based on a synthesized signal strength of the received signal. The claims provide for switching the frequency of the output signal from a channel at one terminal to a channel at the other terminal, but do not provide for *sweeping* between one frequency to another as described in the specification (fig. 3; page16, line 24-page 17, line 20). Because the claim provides for only *changing* between frequencies and not *sweeping* between them, the claim does not particularly point out and distinctly claim the subject matter which the applicant regards as the invention, and hence, the claim is indefinite.

Regarding claim 16, a receiver system comprising an estimation means is claimed wherein the estimation means estimates a receiving channel based on a synthesized signal strength of the received signal. The claims provide for switching the frequency of the output signal from a channel at one terminal to a channel at the other terminal, but do not provide for *sweeping* between one frequency to another as described in the specification (fig. 3; page16, line 24-page 17, line 20). Because the claim provides for only *changing* between frequencies and not *sweeping* between them, the claim does not particularly point out and distinctly claim the subject matter which the applicant regards as the invention, and hence, the claim is indefinite.

Regarding claims 17 and 18, the claims are rejected because they are based upon a rejected parent claim.

Further regarding claim 18, an estimation circuit is claimed wherein the estimation circuit estimates a receiving channel based on a hopping pattern in the

Art Unit: 2634

frequency of the received signal. However, the claim does not particularly point out the process by which the hopping pattern is acquired. The claims provide for switching the frequency of the output signal from a channel at one terminal to a channel at the other terminal, but do not provide for *sweeping* between one frequency to another as described in the specification (fig. 3; page 16, line 24-page 17, line 20). Moreover, the specification provides for the sweeping of the possible reception frequencies a plurality of times (fig. 3) so that the estimation circuit may make a determination of the correct reception frequency based upon a hopping pattern (fig. 6, page 21, line 29-page 22, line 13). Because the claim provides for only *changing* between frequencies and not *sweeping* between them, the claim does not particularly point out and distinctly claim the subject matter which the applicant regards as the invention, and hence, the claim is indefinite. Further, because the claim does not provide for the *sweeping a plurality of times* of the possible reception frequencies, the estimation circuit is not enabled to make a determination of the reception frequency based upon a hopping pattern as illustrated in the drawings.

Allowable Subject Matter

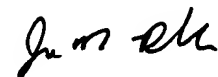
8. No claims are allowed.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M Perilla whose telephone number is (703) 305-0374. The examiner can normally be reached on M-F 8-5 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Chin can be reached on (703) 305-4714. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jason M Perilla
April 7, 2004

jmp



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SUPERVISORY PATENT EXAMINER
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